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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/712,925

11/16/2000

Shuji Ono

3562-0108P

2972

2292 7590 09/22/2008
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EXAMINER

MISLEH, JUSTIN P

ART UNIT

PAPER NUMBER

2622

NOTIFICATION DATE

DELIVERY MODE

09/22/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 09/712,925	Applicant(s) ONO, SHUJI	
	Examiner JUSTIN P. MISLEH	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4 - 32 is/are pending in the application.
- 4a) Of the above claim(s) 11 - 13, 15 - 21, 27 - 29, 31, and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4 - 10, 14, 22 - 26, and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Claims 1 and 22 have been considered but are moot in view of the new grounds of rejection.
2. The Examiner has determined that Claims 1 and 22 each require a rejection under 35 U.S.C. §112, 1st paragraph. Because the specific language causing the rejection was added to Claims 1 and 22 in the Amendment filed with RCE on October 30, 2007, this office action is Non-Final and is meant to replace the Non-Final Rejection mailed January 24, 2008. The Amendment, filed May 20, 2008, has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 1, 4 – 10, 14, 22 – 26, and 30** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The Examiner respectfully notes independent Claims 1 and 22 appear to be corresponding apparatus and method claims, respectively, with substantially similar

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requirements. The claim language of Claim 1 is considered representative – accordingly, Claims 1 and 22 will be rejected together.

5. For **Claims 1 and 22**, these claims each require the particulars of the embodiment of figures 2 and 3 and the embodiment of figures 2 and 4. Figure 2 is a generic apparatus common to both the method embodiments of figures 3 and 4. For instance, Claim 1 states that “an image data input unit for inputting image data of a plurality of objects including a main subject”, which corresponds to the embodiments of figures 2 and 4, and “said image data input unit comprises a means for inputting a parallax image, which is generated by capturing one of said plurality of objects viewed from a plurality of different perspectives”, which corresponds to the embodiments of figures 2 and 3 (Emphasis added by Examiner).

6. The embodiment shown in figures 2 and 3 (as described in the specification on page 19, line 21 – page 20, line 6) shows an apparatus and method for inputting image data of a single object, where the image data is parallax image data showing the object from a plurality of perspectives. Based upon the depth information, which indicates the distance different portions of the object are from the image input unit, the range setting unit sets a partial search range at a depth that is closest to the apparatus. At that partial search range, if a distinctive part is detected then the main subject is deemed to be in that partial search range and information receiving unit receives main subject information.

7. On the other hand, the embodiment shown in figures 2 and 4 (as described in the specification on page 20, line 7 - page 21, line 18) shows an apparatus and method for inputting image data of a plurality of objects, wherein the image data is parallax image data showing the plurality of objects from a plurality of perspectives. Based upon the depth information, which

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indicates the distance different objects are from the image input unit, the range setting unit sets a partial search range for each object at the respective depth. Within each partial search range, if a distinctive part is detected then a main subject is deemed to be in that partial search range and information receiving unit receives main subject information for all of the partial search ranges.

8. The disclosure, including both the specification and figures, do not give any statement or indication that these two embodiments can be combined and used together or even how they would be used together. Therefore, since each of Claims 1 and 22 claim contrary portions of embodiments of figures 2/3 and 2/4, the claims are not enabled. In other words, without further information, the Examiner believes one with ordinary skill in the art would not know how to make or use the claimed invention without undue experimentation.

9. In response to the Election/Restriction requirement (mailed June 30, 2005), Applicant elected Species I (figures 1 – 5) with corresponding Claims 1 – 10, 14, 22 – 26, and 30 to be Examined. Claim 1 of the original claim set, filed November 16, 2000, required, *inter alia*, “an image data input unit for inputting image data of an object.” This language appears to be generic to both the embodiments of figures 2/3 and figures 2/4. However, in the subsequent Amendment, filed August 4, 2006, Claim 1 was amended to recite, *inter alia*, “an image data input unit for inputting image data of a plurality of objects including a main subject.” Thus, it appears Applicant has moved the generic language of Claim 1 towards the embodiment of figures 2/4. Therefore, any subsequent amendment to Claim 1 should correspond with the embodiment of figures 2/4. See 37 CFR 1.142(b) and MPEP § 821.03.

10. For the purposes of overcoming the rejection, the Examiner recommends the following language for Claim 1:

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“An image processing apparatus, comprising:

an image data input unit for inputting image data of a plurality of objects including a main subject, said image data input unit comprises a means for inputting a parallax image, which is generated by capturing said plurality of objects viewed from a plurality of different perspectives;

a depth distribution information receiving unit for receiving a depth distribution information calculated from said parallax image; said depth distribution information is included in said image data and indicates a distance to each of said plurality of objects from the image data input unit;

a range setting unit for restricting a searching range in the depth direction for searching for said main subject from said plurality of objects using the input image data;

a partial image extracting unit for extracting, as a partial image, at least a portion of one of said plurality of objects from said image data based on said depth distribution information, a depth direction of said partial image being restricted to said searching range set by said range setting unit; and

a main subject detecting unit for receiving main subject information and detecting whether said partial image is said main subject based on said main subject information, wherein

in searching for said main subject from the plurality of objects, said partial image extracting unit extracts first, as the partial image, at least the portion of said one of said plurality of objects that is closest in distance in the depth direction.”

11. As for dependent **Claims 4 – 10 and 14**, these claims depend from Claim 1 and are rejected for the same reasons given above. The claims should be reviewed for accuracy based

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upon any revisions made to Claim 1. There should be no mixing of embodiments between an independent claim and its dependent claims.

12. As for dependent **Claims 23 – 26 and 30**, these claims depend from Claim 22 and are rejected for the same reasons given above. The claims should be reviewed for accuracy based upon any revisions made to Claim 22. There should be no mixing of embodiments between an independent claim and its dependent claims.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Sinh Tran can be reached on 571.272.7564. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Justin P. Misleh/

Primary Examiner, Group Art Unit 2622

September 18, 2008